

(2) $xy^3y' + x^4 = y^4$

homogeni: $y' = \frac{y^4 - x^4}{xy^3}$; $y = x \cdot R$
 $y' = R + xR'$

2

~~$R + xR' = \frac{x^4R^4 - x^4}{x^4R^3} = \frac{R^4 - 1}{R^3} = R - \frac{1}{R^3}$~~

$R^3R' = -\frac{1}{x}$

2

$\frac{1}{4}R^4 = C - \ln|x|$; ~~diskuse~~

2

diskuse: $C - \ln|x| > 0$

$C > \ln|x|$
 $x \in (-e^C, e^C) \setminus \{0\}$.

1

$R^4 = 4(C - \ln|x|)$

$R = \pm \sqrt[4]{4(C - \ln|x|)}$

1